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His Asn Gly Ala Leu Leu Ala Phe Ser Pro Pro Pro Pro Arg Arg Gln
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Arg Ser Thr Leu Pro Pro Gly His Cys Leu Pro Ala Ala Lys Pro Pro
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Ser Thr Met Arg Cys Asn Leu Arg Arg Cys Pro Pro Ala Arg Trp Val
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Thr Ser Glu Trp Gly Glu Cys Ser Thr Gln Cys Gly Leu Gly Gln Gln
1010 1015 1020

Gln Arg Thr Val Arg Cys Thr Ser His Thr Gly Gln Pro Ser Arg Glu
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Cys Thr Glu Ala Leu Arg Pro Ser Thr Met Gln Gln Cys Glu Ala Lys
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Cys Asp Ser Val Val Pro Pro Gly Asp Gly Pro Glu Glu Cys Lys Asp
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Val Asn Lys Val Ala Tyr Cys Pro Leu Val Leu Lys Phe Gln Phe Cys
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35 40 45

His Asn Gly Ala Leu Leu Ala Phe Ser Pro Pro Pro Arg Arg Gln
50 55 60

Arg Arg Gly Thr Gly Ala Thr Ala Glu Ser Arg Leu Phe Tyr Lys Val
65 70 75 80

Ala Ser Pro Ser Thr His Phe Leu Leu Asn Leu Thr Arg Ser Ser Arg
85 90 95

Leu Leu Ala Gly His Val Ser Val Glu Tyr Trp Thr Arg Glu Gly Leu
100 105 110

Ala Trp Gln Arg Ala Ala Arg Pro His Cys Leu Tyr Ala Gly His Leu
115 120 125

Gln Gly Gln Ala Ser Thr Ser His Val Ala Ile Ser Thr Cys Gly Gly

130

135

140

Leu His Gly Leu Ile Val Ala Asp Glu Glu Tyr Leu Ile Glu Pro
145 150 155 160

Leu His Gly Gly Pro Lys Gly Ser Arg Ser Pro Glu Glu Ser Gly Pro
165 170 175

His Val Val Tyr Lys Arg Ser Ser Leu Arg His Pro His Leu Asp Thr
180 185 190

Ala Cys Gly Val Arg Asp Glu Lys Pro Trp Lys Gly Arg Pro Trp Trp
195 200 205

Leu Arg Thr Leu Lys Pro Pro Pro Ala Arg Pro Leu Gly Asn Glu Thr
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Glu Arg Gly Gln Pro Gly Leu Lys Arg Ser Val Ser Arg Glu Arg Tyr
225 230 235 240

Val Glu Thr Leu Val Val Ala Asp Lys Met Met Val Ala Tyr His Gly
245 250 255

Arg Arg Asp Val Glu Gln Tyr Val Leu Ala Ile Met Asn Ile Val Ala
260 265 270

Lys Leu Phe Gln Asp Ser Ser Leu Gly Ser Thr Val Asn Ile Leu Val
275 280 285

Thr Arg Leu Ile Leu Leu Thr Glu Asp Gln Pro Thr Leu Glu Ile Thr
290 295 300

His His Ala Gly Lys Ser Leu Asp Ser Phe Cys Lys Trp Gln Lys Ser
305 310 315 320

Ile Val Asn His Ser Gly His Gly Asn Ala Ile Pro Glu Asn Gly Val
325 330 335

Ala Asn His Asp Thr Ala Val Leu Ile Thr Arg Tyr Asp Ile Cys Ile
340 345 350

Tyr Lys Asn Lys Pro Cys Gly Thr Leu Gly Leu Ala Pro Val Gly Gly
355 360 365

Met Cys Glu Arg Glu Arg Ser Cys Ser Val Asn Glu Asp Ile Gly Leu
370 375 380

Ala Thr Ala Phe Thr Ile Ala His Glu Ile Gly His Thr Phe Gly Met
385 390 395 400

Asn His Asp Gly Val Gly Asn Ser Cys Gly Ala Arg Gly Gln Asp Pro
405 410 415

Ala Lys Leu Met Ala Ala His Ile Thr Met Lys Thr Asn Pro Phe Val
420 425 430

Trp Ser Ser Cys Ser Arg Asp Tyr Ile Thr Ser Phe Leu Asp Ser Gly
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Leu Gly Leu Cys Leu Asn Asn Arg Pro Pro Arg Gln Asp Phe Val Tyr
450 455 460

Pro Thr Val Ala Pro Gly Gln Ala Tyr Asp Ala Asp Glu Gln Cys Arg
465 470 475 480
Phe Gln His Gly Val Lys Ser Arg Gln Cys Lys Tyr Gly Val Glu Arg
485 490 495
Val Phe Leu Leu Ser Phe Leu Gly Gly Glu Gly Ala Ala Gly Ala Gly
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His Ala Phe Arg Ser Gln Asp Glu Phe Leu Ser Ser Leu Glu Ser Tyr
50 55 60
Glu Ile Ala Phe Pro Thr Arg Val Asp His Asn Gly Ala Leu Leu Ala
65 70 75 80
Phe Ser Pro Pro Pro Pro Arg Arg Gln Arg Arg Gly Thr Gly Ala Thr
85 90 95
Ala Glu Ser Arg Leu Phe Tyr Lys Val Ala Ser Pro Ser Thr His Phe
100 105 110
Leu Leu Asn Leu Thr Arg Ser Ser Arg Leu Leu Ala Gly His Val Ser
115 120 125
Val Glu Tyr Trp Thr Arg Glu Gly Leu Ala Trp Gln Arg Ala Ala Arg
130 135 140
Pro His Cys Leu Tyr Ala Gly His Leu Gln Gly Gln Ala Ser Thr Ser
145 150 155 160
His Val Ala Ile Ser Thr Cys Gly Gly Leu His Gly Leu Ile Val Ala
165 170 175
Asp Glu Glu Glu Tyr Leu Ile Glu Pro Leu His Gly Gly Pro Lys Gly
180 185 190
Ser Arg Ser Pro Glu Glu Ser Gly Pro His Val Val Tyr Lys Arg Ser

195

200

205

Ser Leu Arg His Pro His Leu Asp Thr Ala Cys Gly Val Arg Asp Glu
210 215 220

Lys Pro Trp Lys Gly Arg Pro Trp Trp Leu Arg Thr Leu Lys Pro Pro
225 230 235 240

Pro Ala Arg Pro Leu Gly Asn Glu Thr Glu Arg Gly Gln Pro Gly Leu
245 250 255

Lys Arg Ser Val Ser Arg Glu Arg Tyr Val Glu Thr Leu Val Val Ala
260 265 270

Asp Lys Met Met Val Ala Tyr His Gly Arg Arg Asp Val Glu Gln Tyr
275 280 285

Val Leu Ala Ile Met Asn Ile Val Ala Lys Leu Phe Gln Asp Ser Ser
290 295 300

Leu Gly Ser Thr Val Asn Ile Leu Val Thr Arg Leu Ile Leu Leu Thr
305 310 315 320

Glu Asp Gln Pro Thr Leu Glu Ile Thr His His Ala Gly Lys Ser Leu
325 330 335

Asp Ser Phe Cys Lys Trp Gln Lys Ser Ile Val Asn His Ser Gly His
340 345 350

Gly Asn Ala Ile Pro Glu Asn Gly Val Ala Asn His Asp Thr Ala Val
355 360 365

Leu Ile Thr Arg Tyr Asp Ile Cys Ile Tyr Lys Asn Lys Pro Cys Gly
370 375 380

Thr Leu Gly Leu Ala Pro Val Gly Gly Met Cys Glu Arg Glu Arg Ser
385 390 395 400

Cys Ser Val Asn Glu Asp Ile Gly Leu Ala Thr Ala Phe Thr Ile Ala
405 410 415

His Glu Ile Gly His Thr Phe Gly Met Asn His Asp Gly Val Gly Asn
420 425 430

Ser Cys Gly Ala Arg Gly Gln Asp Pro Ala Lys Leu Met Ala Ala His
435 440 445

Ile Thr Met Lys Thr Asn Pro Phe Val Trp Ser Ser Cys Ser Arg Asp
450 455 460

Tyr Ile Thr Ser Phe Leu Asp Ser Gly Leu Gly Leu Cys Leu Asn Asn
465 470 475 480

Arg Pro Pro Arg Gln Asp Phe Val Tyr Pro Thr Val Ala Pro Gly Gln
485 490 495

Ala Tyr Asp Ala Asp Glu Gln Cys Arg Phe Gln His Gly Val Lys Ser
500 505 510

Arg Gln Cys Lys Tyr Gly Val Glu Arg Val Phe Leu Leu Ser Phe Leu
515 520 525

Gly Gly Glu Gly Ala Ala Gly Ala Gly Gly Asn Ser Thr Arg Ala
530 535 540

Pro Thr Trp Glu Val Arg Gly Trp Glu Asn Arg Glu Gly Gly
545 550 555